

# ELASTOSIL® Film 2030



## Silicone Films

ELASTOSIL® Film 2030 250/xxx is a high-precision silicone film made from cross-linked silicone rubber. High precision in the production allows a constant electrical resistance and good comparative tracking resistance across a broad range of temperatures.

The width is 250 mm and thickness is given in  $\mu\text{m}$  (xxx). xxx stands for

- 20  $\mu\text{m}$
- 50  $\mu\text{m}$
- 100  $\mu\text{m}$
- 200  $\mu\text{m}$
- 300  $\mu\text{m}$
- 400  $\mu\text{m}$

## Properties

ELASTOSIL® Film has got the outstanding mechanical and physical properties of platinum cured silicone.

- high and selectively gas and water vapor permeable
- high temperature resistant and low temperature flexible
- high dielectric strength combined with a high specific resistivity
- transparent
- constant mechanical and electrical properties over a wide range of temperatures and operating time
- solvent free

## Specific features

- Electrically insulating
- Excellent dielectrical properties
- Flexible at low (-40 °C) and high temperatures (+180 °C)
- Gas permeable
- Highly transparent
- Precise

## Technical data

### Properties Cured

Cure conditions: 190°C 10min

Property	Condition	Value	Method
Dielectric strength	-	80 - 100 kV/mm	-
Volume resistivity	-	10 <sup>14</sup> Ohmcm	IEC 60093
Hardness Shore A	-	27	DIN ISO 48-4
Tensile strength	-	6.0 N/mm <sup>2</sup>	ISO 37 type 1
Elongation at break	-	450 %	ISO 37 type 1
Compression Set	22 h   100 °C	5 %	DIN ISO 815-1 type B method A
Gas permeability (selectively)	-	CO <sub>2</sub> /N <sub>2</sub> = 10:1	DIN 53536
Water vapor permeability	24 h   20 µm	3000 g/m <sup>2</sup>	JIS 1099 A1
Water vapor permeability	24 h   50 µm	1200 g/m <sup>2</sup>	JIS 1099 A1
Water vapor permeability	24 h   100 µm	800 g/m <sup>2</sup>	JIS 1099 A1
Glass transition temperature	-	-126 °C	-
Operating temperature	-	-45 - 150 °C	-
Tear strength	-	10 N/mm	ASTM D 624 B

These figures are only intended as a guide and should not be used in preparing specifications.

All the information provided is in accordance with the present state of our knowledge. Nonetheless, we disclaim any warranty or liability whatsoever and reserve the right, at any time, to effect technical alterations. The information provided, as well as the product's fitness for an intended application, should be checked by the buyer in preliminary trials. Contractual terms and conditions always take precedence. This disclaimer of warranty and liability also applies particularly in foreign countries with respect to third parties' rights.

Store in a dry and cool place.

## Applications

- Electrics & Electronics
- Electroactive Polymers (EAPs)
- Electronics
- Film & Foil Converting
- Renewable Energies

## Application details

- dielectric film in EAP applications for sensors, actuators and generators
- functional membranes
- optical layers / interlayers
- protective films
- functional packaging

### Production

ELASTOSIL® Film is manufactured and packed under cleanroom conditions, class 8.  
Cutting and packing of film sheets is done in a clean environment, outside the cleanroom.

## Processing

### Production

ELASTOSIL® Film is manufactured and packed under cleanroom conditions, class 8.  
Cutting and packing of film sheets is done in a clean environment, outside the cleanroom.

### Adhesion

Silicon Film can be glued to a numerous substrates with standard silicone adhesives. Depending on your requirements, ELASTOSIL® E43 can be the glue of choice.  
Adhesion can generally be achieved and / or improved by using plasma bonding.

### Cutting

Silicon Film can be processed by conventional technologies like die cutting, laser cutting or water jet cutting.

## Packaging and storage

### Packaging

ELASTOSIL® Film is always delivered on a PET carrier, either on rolls or as sheets.

Dimensions of film roll stock:

10 m<sup>2</sup>  $\triangleq$  40 running meter x 250 mm width

20 m<sup>2</sup>  $\triangleq$  80 running meter x 250 mm width

The roll stock is supplied with an inner diameter of 3" ( $\triangleq$  7,62 cm)

Film sheets have the dimension 210 mm x 250 mm; delivery in boxes with 20 sheets each.

### Storage

Minimum temperature allowed during storage and transportation: 0 °C

Maximum temperature allowed during storage and transportation: 80 °C

## QR Code ELASTOSIL® Film 2030



**For technical, quality or product safety questions, please contact:**

**Wacker Chemie AG**, Gisela-Stein-Strasse 1, 81671 Munich, Germany  
productinformation@wacker.com, www.wacker.com

The data presented in this medium are in accordance with the present state of our knowledge but do not absolve the user from carefully checking all supplies immediately on receipt. We reserve the right to alter product constants within the scope of technical progress or new developments. The recommendations made in this medium should be checked by preliminary trials because of conditions during processing over which we have no control, especially where other companies' raw materials are also being used. The information provided by us does not absolve the user from the obligation of investigating the possibility of infringement of third parties' rights and, if necessary, clarifying the position. Recommendations for use do not constitute a warranty, either express or implied, of the fitness or suitability of the product for a particular purpose.